Amendments to the Claims:

1. (currently amended) An apparatus for a radio communication system comprising:

means for receiving an access message transmitted from a subscriber unit to a base station;

means for determining a distance characteristic between the subscriber unit and the base station using a propagation delay of the access message;

means for receiving a measured signal to interference ratio of a signal of the base station data from the subscriber unit;

means for determining an interference characteristic including an intra-cell interference factor and an inter-cell interference factor associated with the subscriber unit in response to the measured signal to interference ratio and ~~a known transmitted signal to interference ratio of the base station~~ the distance characteristic between the subscriber unit and the base station; and

means for determining a resource requirement for achieving a desired signal to interference ratio in response to the interference characteristic.

2. (currently amended) An apparatus as claimed in claim 1 wherein the resource requirement of the means for determining a resource requirement is a relative downlink transmit power requirement given by:

$$UserAdm = \alpha \frac{(E_b/N_o)}{PG}\left[(1-\beta)+f\right]$$

wherein $\beta$ is the intra-cell interference factor, $f$ is the inter-cell interference factor, $E_b/N_O$ is the desired signal to noise ratio, $\alpha$ is the voice activity factor and $PG$ is the processing gain given by

$$PG = \frac{W}{UserBitRate}$$

where W is carrier chip rate and the UserBitRate is proportional to the spreading factor ~~the interference characteristic is operable to determine a distance characteristic indicative of a distance between the subscriber unit and the base station and to determine the interference characteristic in response to the distance characteristic~~.

3. (currently amended) An apparatus as claimed in claim ~~2~~ 1 wherein the means for determining the interference characteristic is operable to determine the intra-cell interference factor and the inter-cell interference factor in response to the distance characteristic by biasing each of the interference factors relative to a nominal value ~~in response to a propagation delay associated with a communication between the subscriber unit and the base station~~.

4. (currently amended) An apparatus as claimed in claim ~~2~~ 1 wherein the distance characteristic comprises a ratio between an estimated distance between the subscriber unit and the base station and a cell radius associated with the base station.

5. (currently amended) An apparatus as claimed in claim ~~2~~ 3 wherein the nominal value is a minimum value that is increased dependent on an increased distance between the subscriber unit

and the base station means for determining the interference characteristic is operable to determine the interference characteristic in response to a predetermined variation of the interference characteristic as a function of the distance characteristic.

6. (canceled).

7. (currently amended) An apparatus as claimed in claim ~~2~~ 1 wherein the means for determining the interference characteristic is operable to determine the interference characteristic in response to empirical data indicating an association between the interference characteristic and the distance characteristic

8. (currently amended) An apparatus as claimed in claim ~~2~~ 1 wherein the means for determining the interference characteristic is operable to determine the interference characteristic in response to simulation data indicating an association between the interference characteristic and the distance characteristic

9-11. (canceled)

12. (currently amended) An apparatus as claimed in claim ~~1~~ 5 wherein the interference factors are determined from:

$$\beta = \beta_{\min} + r \cdot (\beta_{\max} - \beta_{\min})$$

and

$$f = f_{\min} + r \cdot (f_{\max} - f_{\min})$$

where r is the distance normalized to the maximum cell radius, $\beta$ is the intra-cell interference factor, and $f$ is the inter-cell interference factor characteristic comprises an intra-cell interference ratio and the means for determining the interference characteristic is operable to compensate for an inter-cell interference component of the measured signal to interference ratio.

13. (currently amended) An apparatus as claimed in claim 1 wherein a look-up table may be generated which relates the relative distance of a subscriber unit to the corresponding inter-cell interference factor and intra-cell interference factor values ~~the signal measurement data comprises measured signal to interference ratios associated with the base station and a plurality of neighboring base stations and the means for determining the interference characteristic is operable to determine the interference characteristic comprising an inter-cell interference measure in response to the measured signal to interference ratios associated with the base station and the plurality of neighboring base stations~~.

14. (canceled).

15. (canceled).

16. (canceled).

17. (canceled).

18. (currently amended) An apparatus as claimed in claim 1~~7~~ wherein the intra-cell interference factor comprises an intra-cell orthogonality factor.

19. (currently amended) An apparatus as claimed in claim 17 wherein measured data has been compiled for both the inter-cell interference factor and an intra-cell orthogonality interference factor at different locations in the cells ~~the means for determining the resource requirement is further operable to determine the resource requirement in response to a noise level~~.

20. (currently amended) An apparatus as claimed in claim 19 wherein an intra-cell orthogonality factor bias can be calculated as

bias= 1- (Ec/Ior)/(Ec/Io)

where Ec/Ior is the downlink signal to interference ratio, and the corresponding intra-cell orthogonality factor value as:

$$\beta = \beta_{\min} + bias \cdot (\beta_{\max} - \beta_{\min})$$

~~the resource requirement is a power requirement~~.

21. (canceled).

22. (currently amended) An apparatus as claimed in claim 1 wherein the resource requirement for subscriber unit *i* can be determined from the following equation:

$$\theta_i \phi P = \left(\frac{E_b}{N_o}\right)_i \cdot \frac{\alpha_i}{PG_i}\left[(1-\beta_i)P + P\sum_{n=1, n\neq m}^{N} \frac{L_{m,i}}{L_{n,i}} + N_o W \cdot L_{m,i}\right]$$

where

$P$ is the total power limit per base station,

$\phi$ is the fraction of total base station power which is dedicated to traffic,

$\theta_i$ is the fraction of total traffic power required for $i^{th}$ subscriber unit,

$\alpha$ is the channel activity factor for $i^{th}$ subscriber unit,

$\beta_i$ is the intra-cell orthogonality factor observed by $i^{th}$ subscriber unit,

$PG_i$ is processing gain of $i^{th}$ subscriber unit,

$(E_b/N_o)_i$ is the required energy per bit over noise density for $i^{th}$ subscriber unit for the requested service,

$L_{m,i}$ is pathloss between serving cell $m$ and $i^{th}$ subscriber unit, and

$L_{n,i}$ is pathloss between neighboring cell $n$ and $i^{th}$ subscriber unit.

~~further comprising means for determining if the resource requirement is less than an available resource of the base station and for admitting access of the subscriber unit only if the resource requirement is less than the available resource~~.

23. (canceled).

24. (canceled).

25. (currently amended) A method of radio access management for a radio communication system, the method comprising the steps of:

receiving an access message from a subscriber unit at a base station;

determining a distance between the subscriber unit and the base station using a propagation delay of the access message;

receiving a measured signal to interference ratio of a signal of the base station data from the subscriber unit;

determining an interference characteristic including an intra-cell interference factor and an inter-cell interference factor associated with the subscriber unit in response to the measured signal to interference ratio and ~~a known transmitted signal to interference ratio of the base station~~ the distance between the subscriber unit and the base station; and

determining a resource requirement for achieving a desired signal to interference ratio in response to the interference characteristic.